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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,724

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Guido Cappellotto

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EXAMINER

STORMER, RUSSELL D

ART UNIT

PAPER NUMBER

3617

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,724	Applicant(s) CAPPELLOTTO, GUIDO	
	Examiner Russell D. Stormer	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1,3-20,22-24,26-28 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 21, 25, and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 11, 2009 has been entered.

Election/Restrictions

Newly amended claim 17 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

There is no description in the elected embodiment of figures 6 and 7 of the rim having female threads as now set forth in claim 17. Female threads are described as being disposed in the hole 21 shown in figure 1, and appear to be present in non-elected figure 5, but there is no description of the elected embodiment of figures 6 and 7 having female threads in the hole 21. Instead, the nut 36 engages the threads on the nipple. Claim 17 has been amended to claim at least one of the non-elected embodiments and no longer reads on the elected embodiment.

Moreover, the term "female threads" does not appear anywhere in the specification.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

Art Unit: 3617

prosecution on the merits. Accordingly, claims 17-20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The drawings are objected to because the lead line from the reference character 21 points to the shank or nipple, and not the hole in the rim as described in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leo et al (U.S. Patent Application Publication 2002/0060494; previously cited).

As shown in figures 2 and 3 Leo et al discloses a rim and spoke connection for a wheel comprising a rim having holes; nipples 20 having a head portion which is seated in rim cups 13 and a body 24 which extends through the holes; and a plurality of spokes each with a threaded end 12 which is threaded into a spoke nipple. A sealing ring 30 produces a gas-tight fit between the nipple and the rim. The head 25 or the threads 29 create an axial bidirectional locking means such that when the nipple is turned the spoke is drawn into the threaded opening in the nipple and locking the nipple in place on the rim.

As shown in figures 4, 5, and 6, Leo et al discloses a wheel comprising a plurality of spokes connected to a single channel rim. Each spoke 4 includes a nipple 20 inserted through an opening 41' in the rim in a gas-tight fit, with the nipple having internal threads 29 in a blind hole 28 to threadedly receive the threaded end 12 of the spoke in a manner that would create an axial bidirectional locking means.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 21, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarth in view of Kono et al (both newly cited).

Zarth (U.S. Patent 1043283) discloses wheel assembly comprising a rim 13 and a plurality of spokes 16. The rim includes a plurality of holes; nipples 27 having a head or shoulder portion abutting the rim the rim nipples or seats 30, and a shank having external threads 28; and a plurality of spokes each with a threaded end which is threaded into a hole in the spoke nipple shank. The shanks of the nipples are received in lock nuts 29 which include female threads to engage the threads 28 on the shanks. The shoulders of the nipples and the threaded connection between the shank and the nut create an axial bidirectional locking means such that the rim is gripped between the nut 29 and the shoulder of the nipple.

The nipple of Zarth is not disclosed as producing a gas-tight fit between the nipple and the rim.

Kono et al (Japanese Document 60-38201) teaches a rim and spoke connection in which a sealing element is disposed between the rim and the nipple on the end of the spoke.

Art Unit: 3617

From this teaching it would have been obvious to provide the rim and spoke assembly of Zarth with a sealing means such as that taught by Kono et al in order to seal the opening through which the spoke nipples are inserted as this would prevent water or moisture from entering the inner part of the rim through the spoke holes. If a tubeless tire was to be mounted on the rim of Zarth, the use of such sealing means would create a gas-tight connection between the nipples and the rim and would prevent the loss of air through the spoke openings as is well-known in the art and taught by Kono et al. Further, the use of such sealing means on the rim of Zarth would yield results that would be easily predictable to those of ordinary skill in the art.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leo et al in view of Chiang et al.

Leo et al meets the limitations of claim 2 as noted above, but the spokes are not disclosed as being made of a light alloy.

Chiang et al teaches a spoke 60 that is made of steel, and a spoke 60' that is made of aluminum alloy. See figures 5 and 6 and lines 14-36 of column 1.

From this teaching it would have been obvious to those of ordinary skill in the art that the spokes of a wheel may be made of steel or aluminum alloy, and to choose aluminum alloy for the spokes of Leo et al would have been obvious in order to reduce the weight of the wheel, or to improve the wheel's resistance to corrosion, as is well-known. The results of using one material over the other would have been predictable.

Response to Arguments

Applicant's arguments filed March 11, 2009 have been fully considered but they are not persuasive.

Applicant argues that the Leo et al patent does not disclose or suggest each nipple fitted to the rim in a gastight manner by "axial bidirectional locking means." Applicant further argues that the seal of Leo et al cannot be considered to be a "bidirectional locking means," that the Examiner has failed to provide reference numbers or other specific disclosure for the "bidirectional locking means," and that the Examiner's interpretation of Leo et al is "overly broad."

This is not found to be persuasive because the term "axial bidirectional locking means" is considered to be overly broad, and when given its broadest reasonable interpretation can be an element which moves, extends, functions, locks, or faces two axial directions. The element to be locked by such a means could also move, extend, function, or face two axial directions and the limitations of the claim would be met. Applicant argues the patentability function 2 as if the threads or nut were set forth in the claim even though they are not. Instead, the only structure in the claim for the bidirectional locking means is that it must be on a portion of the nipple.

Leo et al clearly shows a means which meets the limitations of claim 2. With respect to the arguments that the previous office action did not point out the bidirectional locking means in Leo et al, this statement is somewhat less than correct because the previous office did in fact use reference numbers and did clearly explain

Art Unit: 3617

which element(s) in Leo et al is the bidirectional locking means and identified such means as the threads 29 in the shank and the threads of the spokes.

Applicant further argues that the seal cannot be considered to be a "bidirectional locking means," but as noted above this limitation is overly broad, and the previous office action **did not** identify the seal as the locking means. Applicant has not addressed the rejection in the previous office action as it was set forth in that action and has not commented on the description of the threads 29 and the threaded ends of the spokes as described in the first two lines of page 3 of the previous office action.

Further, the statement that the seal of Leo et al is designed to allow air to escape when the spokes are loose is noted, but this is irrelevant because the spokes of Leo et al would normally be properly tightened, and any extra or added function of the seals does not negate the fact that Leo et al meets the limitations of claim 2.

Finally, on page 6 of the Response, Applicant argues that in the present invention the nipple is bidirectionally locked to the rim and that in the prior art of record the nipple is locked to the spoke thread. This is not relative because none of Applicant's claims recite the nipple as being "bidirectionally locked to the rim," and also because in instant claim 21 part of the claimed "axial bidirectional locking means" is the threads on the shank of the nipple and it is the rim which is locked between the nipple and the nut.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571)

Art Unit: 3617

272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Russell D. Stormer/
Primary Examiner, Art Unit 3617